



Governor

*Lori F. Kaplan*  
Commissioner

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live.*

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6015

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## FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) Renewal OFFICE OF AIR QUALITY

**Merrill Manufacturing, Inc.  
1052 South Bond Street  
Scottsburg, Indiana 47170**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F143-14946-00015	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:  Expiration Date:

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## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

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The Permittee owns and operates a stationary wood waterbed frame manufacturing.

Authorized individual:	Jeff Merrill
Source Address:	1052 South Bond Street, Scottsburg, Indiana 47170
Mailing Address:	1052 South Bond Street, Scottsburg, Indiana 47170
SIC Code:	2511
Source Location Status:	Scott
County Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP)
	Minor Source, under PSD;
	Minor Source, Section 112 of the Clean Air Act

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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This stationary source consists of the following emission units and pollution control devices:

- (a) Three (3) spray paint booths identified as SB-1, SB-2, and SB-3 (each constructed in 1985), each equipped with dry filters for PM control and using air atomization spray gun with a maximum capacity of 30 units per hour, and exhausting through stacks SB-1-S, SB-2-S, and SB-3-S, respectively.
- (b) One (1) woodworking operation identified as WW-1, with a maximum throughput of 1860 pounds per hour, equipped with one (1) cyclone dust collection system for particulate matter control and exhausting through stack DC-1.

### A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

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This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.
- (b) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
- (c) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.
- (d) Cleaners and solvents which combined do not exceed 145 gallons per 12 months.
- (e) Infrared cure equipment.
- (f) Any operation using aqueous solutions containing less than 1 percent by weight of VOCs

excluding HAPs.

- (g) Water based adhesives that are less than or equal to 5 percent by volume of VOCs excluding HAPs.
- (h) Paved and unpaved roads and parking lots with public areas.
- (i) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks and fluid handling equipment.
- (j) Silk screening booth with potential VOC emissions less than 0.5 tons per year.
- (k) One (1) 1,200 gallon lacquer above ground storage tank.
- (l) One (1) 1,200 gallon sealer above ground storage tank.
- (m) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute.

#### A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

#### A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
  - (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deletedby this permit.
- (b) All previous registrations and permits are superseded by this permit.

## **SECTION B                      GENERAL CONDITIONS**

### **B.1        Permit No Defense [IC 13]**

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Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

### **B.2        Definitions [326 IAC 2-8-1]**

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Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

### **B.3        Permit Term [326 IAC 2-8-4(2)]**

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This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

### **B.4        Enforceability [326 IAC 2-8-6]**

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Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

### **B.5        Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]**

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The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

### **B.6        Severability [326 IAC 2-8-4(4)]**

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The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### **B.7        Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]**

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This permit does not convey any property rights of any sort, or any exclusive privilege.

### **B.8        Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]**

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(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]
- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

**B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]**

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IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

**B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]**

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- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
  - (1) Enforcement action;
  - (2) Permit termination, revocation and reissuance, or modification; and
  - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

**B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]**

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- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

**B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]**

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- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be

submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]**

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall-maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, . IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the



"authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

**B.14 Emergency Provisions [326 IAC 2-8-12]**

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- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
  - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;  
  
Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)  
or,  
Telephone No.: 317-233-5674 (ask for Compliance Section)  
Facsimile No.: 317-233-5967  
  
Failure to notify IDEM, OAQ by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]
  - (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015

Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ , may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ , by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

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- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

**B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination**  
[326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
- (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.17 Permit Renewal [326 IAC 2-8-3(h)]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015

(b) **Timely Submittal of Permit Renewal [326 IAC 2-8-3]**

- (1) A timely renewal application is one that is:

- (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
- (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

- (2) If IDEM, OAQ upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) **Right to Operate After Application for Renewal [326 IAC 2-8-9]**

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

**B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]**

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- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015

Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

**B.19 Operational Flexibility [326 IAC 2-8-15] [326 IAC 2-8-11.1]**

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- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

- (1) A brief description of the change within the source;

- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) Emission Trades [326 IAC 2-8-15(c)]  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

**B.20 Permit Revision Requirement [326 IAC 2-8-11.1]**

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A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

**B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]**

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Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]**

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- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit

responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

**B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]**

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- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

### Emissions Limitations and Standards [326 IAC 2-8-4(1)]

#### C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also satisfy the requirements of 326 IAC 2-2 (PSD);
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

#### C.2 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

#### C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.



**C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]**

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The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

**C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]**

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The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

**C.6 Fugitive Dust Emissions [326 IAC 6-4]**

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The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

**C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]**

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Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission unit vented to the control equipment is in operation.

**C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]**

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- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Indiana Accredited Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

#### **Testing Requirements [326 IAC 2-8-4(3)]**

##### **C.9 Performance Testing [326 IAC 3-6]**

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- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

#### **Compliance Requirements [326 IAC 2-1.1-11]**

##### **C.10 Compliance Requirements [326 IAC 2-1.1-11]**

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The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in

accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]**

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

**C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

**C.13 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]**

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
- (b) Whenever a condition in this permit requires the measurement of a temperature, flow rate, or pH level, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
- (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

**Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]**

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.15 Compliance Response Plan - Preparation, Implementation, Records, and Reports  
[326 IAC 2-8-4] [326 IAC 2-8-5]

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- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and is comprised of:
  - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
  - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
  - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
  - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
  - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
  - (4) Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
  - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such

request has not been denied.

- (3) An automatic measurement was taken when the process was not operating.
- (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

**C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]  
[326 IAC 2-8-5]**

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- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

**C.17 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]**

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- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

**C.18 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]**

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- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) Reporting periods are based on calendar years.

**Stratospheric Ozone Protection**

**C.19 Compliance with 40 CFR 82 and 326 IAC 22-1**

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Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (a) Three (3) spray paint booths identified as SB-1, SB-2, and SB-3 (each constructed in 1985), each equipped with dry filters for PM control and using air atomization spray gun with a maximum capacity of 30 units per hour, and exhausting through stacks SB-1-S, SB-2-S, and SB-3-S, respectively.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.1.1 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAPs) [326 IAC 2-8]

The Permittee shall comply as follows:

- (a) The total input usage of volatile organic compounds (VOC) at each of spray paint booths SB-2, and SB-3, including VOC usage for clean-up, shall be less than 25 tons per twelve (12) consecutive month period. Compliance with this condition shall limit the source-wide potential to emit VOC to less than 100 tons per twelve (12) consecutive month period.
- (b) The total input usage of any single hazardous air pollutant (HAP) at spray paint booths SB-1, SB-2, and SB-3, including HAP usage for clean-up, shall be less than 10 tons per 12 consecutive month period. Compliance with this condition shall limit the source-wide potential to emit a single HAP to less than 10 tons per twelve (12) consecutive month period.
- (c) The total input usage of the combined HAPs at spray paint booths SB-1, SB-2, and SB-3, including combined HAP usage for clean-up, shall be less than 25 tons per twelve (12) consecutive month period. Compliance with this condition shall limit the source-wide potential to emit total HAPs to less than 25 tons per twelve (12) consecutive month period.

Compliance with these limitations shall make the requirements of 326 IAC 2-7 (Part 70) not applicable to the source.

#### D.1.2 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

The Permittee shall comply as follows:

- (a) The total input usage of volatile organic compounds (VOC) at spray paint booth SB-2, including VOC usage for clean-up, shall be less than 25 tons per twelve (12) consecutive month period.
- (b) The total input usage of volatile organic compounds (VOC) at spray paint booth SB-3, including VOC usage for clean-up, shall be less than 25 tons per twelve (12) consecutive month period.

Compliance with these limitations shall make the requirements of 326 IAC 8-1-6 (BACT) not applicable to the source.

- (c) Any change or modification to the spray paint booth (SB-1) that may increase the PTE of VOC to more than 25 tons per year, shall be subject to the requirements of 326 IAC 8-1-6 and must be approved by the Office of Air Quality before such change can occur.

**D.1.3 Particulate Matter (PM) [40 CFR Subpart P]**

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Pursuant to 40 CFR Subpart P, the PM as overspray from coating booths SB-1, SB-2 and SB-3 each shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

**D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities.

**Compliance Determination Requirements**

**D.1.5 Particulate [326 IAC 6-3-2(d)]**

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Pursuant to [326 IAC 6-3-2(d)] and in order to comply with D.1.3, the dry filters for particulate control shall be in operation in accordance with manufacturer's specifications and control emissions from the coating booths (SB-1, SB-2 and SB-3) at all times when the booths are in operation.

**D.1.6 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP)**

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Compliance with the VOC and HAP usage limitations contained in Conditions D.1.1 and D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer.

**D.1.7 VOC and HAP Emissions**

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Compliance with Conditions D.1.1 and D.1.2 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound, single HAP and combined HAP usage for the most recent twelve (12) month period.

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**D.1.8 Monitoring**

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- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth SB-1, SB-2 and SB-3 stacks while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the



Preventive Maintenance Plan.

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

**D.1.9 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC and HAP usage limits established in Conditions D.1.1 and D.1.2.
  - (1) The amount and VOC and HAP content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
  - (2) A log of the dates of use;
  - (3) Method of application for each wood furniture coating used;
  - (4) The total VOC usage for each month and the weight of VOCs emitted for each compliance period; and
  - (5) The total HAP usage for each month and the weight of individual and total HAPs emitted for each compliance period.
- (b) To document compliance with Condition D.1.9, the Permittee shall maintain a log of weekly overspray observations, monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**D.1.10 Reporting Requirements**

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A quarterly summary of the information to document compliance with Conditions D.1.1 and D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

## SECTION D.2

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (b) One (1) woodworking operation identified as WW-1, with a maximum throughput of 1860 pounds per hour, equipped with one (1) cyclone dust collection system for particulate matter control and exhausting through stack DC-1.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.2.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the woodworking operation shall not exceed 3.90 pounds per hour when operating at a process weight rate of 1,860 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour.}$$

#### D.2.2 PM<sub>10</sub> Emission Limitation [326 IAC 2-8-4]

The total PM<sub>10</sub> emissions from the woodworking operation shall not exceed 3.9 pounds per hour, which is equivalent to 17.0 tons per year. Therefore, the requirements of 326 IAC 2-7 do not apply.

#### D.2.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

### Compliance Determination Requirements

#### D.2.4 Particulate Matter (PM)

In order to comply with Condition D.2.1 and D.2.2, the cyclone dust collection system for PM control shall be in operation at all times that the woodworking equipment is in operation.

### Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

#### D.2.5 Visible Emissions Notations

- (a) Daily visible emission notations of the of the woodworking operation stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

#### **D.2.6 Cyclone Inspections**

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An inspection shall be performed each calendar quarter of all cyclones controlling the woodworking operation when venting to the atmosphere. A cyclone inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

#### **D.2.7 Cyclone Failure Detection**

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In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

### **Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

#### **D.2.8 Record Keeping Requirements**

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- (a) To document compliance with Condition D.2.5, the Permittee shall maintain records of daily visible emission notations of the woodworking stack exhaust.
- (b) To document compliance with Condition D.2.6, the Permittee shall maintain records of the results of the inspections required under Condition D.2.6 and the dates the vents are redirected.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: Merrill Manufacturing, Inc.  
Source Address: 1052 South Bond Street, Scottsburg, Indiana 47170  
Mailing Address: 1052 South Bond Street, Scottsburg, Indiana 47170  
FESOP No.: F143-14946-00015

**This certification shall be included when submitting monitoring, testing reports/results  
or other documents as required by this permit.**

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) \_\_\_\_\_
- 9 Report (specify) \_\_\_\_\_
- 9 Notification (specify) \_\_\_\_\_
- 9 Affidavit (specify) \_\_\_\_\_
- 9 Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information  
in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
P.O. Box 6015  
100 North Senate Avenue  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY OCCURRENCE REPORT**

Source Name: Merrill Manufacturing, Inc.  
Source Address: 1052 South Bond Street, Scottsburg, Indiana 47170  
Mailing Address: 1052 South Bond Street, Scottsburg, Indiana 47170  
FESOP No.: F143-14946-00015

**This form consists of 2 pages**

**Page 1 of 2**

**9** This is an emergency as defined in 326 IAC 2-7-1(12)  
CThe Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and  
CThe Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE BRANCH  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015**

**FESOP Quarterly Report**

Source Name: Merrill Manufacturing, Inc.  
Source Address: 1052 South Bond Street, Scottsburg, Indiana 47170  
Mailing Address: 1052 South Bond Street, Scottsburg, Indiana 47170  
FESOP No.: F143-14946-00015  
Facilities: Spray coating booths SB-1, SB-2, and SB-3  
Parameter: Single and Combined Hazardous Air Pollutants (HAPs)  
Limits: The total input usage of any single HAP, and total HAPs delivered to the applicators in the three (3) spray paint booths (identified as SB-1, SB-2 and SB-3) and during clean-up shall be limited to less than 10 and 25 tons per twelve (12) consecutive month period, rolled on a monthly basis, respectively.

YEAR: \_\_\_\_\_

Month	Total Usage This Month (tons)		Total Usage Previous 11 Months (tons)		Total Usage 12 Months (tons)	
	Single HAP	Combined HAPs	Single HAP	Combined HAPs	Single HAP	Combined HAPs
Month 1						
Month 2						
Month 3						

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: Merrill Manufacturing, Inc.  
Source Address: 1052 South Bond Street, Scottsburg, Indiana 47170  
Mailing Address: 1052 South Bond Street, Scottsburg, Indiana 47170  
FESOP No.: F143-14946-00015  
Facility: Spray coating booths (SB-2 and SB-3)  
Parameter: VOC  
Limit: The total input usage of VOC delivered to the applicators in each spray paint booth SB-2 and SB-3 and during clean-up shall be limited to less than 25 tons per twelve (12) consecutive month period.

YEAR: \_\_\_\_\_

Booth	Month	VOC Usage	Booth	Month	VOC Usage
SB-2			SB-2		
SB-3			SB-3		
Total			Total		
SB-2					
SB-3					
Total					

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.



**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Merrill Manufacturing, Inc.  
Source Address: 1052 South Bond Street, Scottsburg, Indiana 47170  
Mailing Address: 1052 South Bond Street, Scottsburg, Indiana 47170  
FESOP No.: F143-14946-00015

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## Indiana Department of Environmental Management Office of Air Quality

### Addendum to the Technical Support Document for a Federally Enforceable State Operating Permit (FESOP) Renewal

**Source Name:** Merrill Manufacturing, Inc.  
**Source Location:** 1052 South Bond Street, Scottsburg, Indiana 47170  
**County:** Sott  
**SIC Code:** 2511  
**Operation Permit No.:** F143-14946-00015  
**Permit Reviewer:** Adeel Yousuf/EVP

On July 13, 2002, the Office of Air Quality (OAQ) had a notice published in the Scott County Journal in Scottsburg, Indiana, stating that Merrill Manufacturing, Inc. had applied for a Federally Enforceable State Operating Permit (FESOP) Renewal relating to the manufacturing of wood waterbed frames. The notice also stated that OAQ proposed to issue a FESOP Renewal for this operation and provided information on how the public could review the proposed FESOP Renewal and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this FESOP Renewal should be issued as proposed.

Upon further review, the OAQ has decided to make the following changes to the FESOP renewal. Bolded language has been added and the language with a line through it has been deleted.

#### 1. Sections A.1 and D.1

Merrill Manufacturing, Inc. confirmed to IDEM that the three (3) spray paint booths (SB-1, SB-2 and SB-3) at the facility are equipped with dry filter for PM control. These spray booths have been equipped with the control units since the issuance of the original FESOP but were not listed in the FESOP permit. Emission calculation spreadsheets have also been updated to reflect this change (see Appendix A, pages 1 through 4 (revised)). Sections A.1 and D.1 have been updated as follows.

#### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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This stationary source consists of the following emission units and pollution control devices:

- (a) Three (3) spray paint booths identified as SB-1, SB-2, and SB-3 (each constructed in 1985), each **equipped with dry filters for PM control and** using air atomization spray gun with a maximum capacity of 30 units per hour, and exhausting through stacks SB-1-S, SB-2-S, and SB-3-S, respectively.

## SECTION D.1 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (a) Three (3) spray paint booths identified as SB-1, SB-2, and SB-3 (each constructed in 1985), each **equipped with dry filters for PM control and** using air atomization spray gun with a maximum capacity of 30 units per hour, and exhausting through stacks SB-1-S, SB-2-S, and SB-3-S, respectively.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

2. The following updates have been made to incorporate the 326 IAC 6-3 revisions that became effective on June 12, 2002.

1. The following requirement from the previous version of 326 IAC 6-3 (Process Operations) has been approved into the SIP will remain applicable requirement until the revisions to 326 IAC 6-3 are approved into the SIP and the condition is modified in a subsequent permit action. The following change has been made to clarify that the authority for this condition is from the SIP:

### D.1.3 Particulate Matter (PM) ~~[326 IAC 6-3-2]~~ **[40 CFR 52 Subpart P]**

Pursuant to ~~326 IAC 6-3-2~~ **40 CFR 52 Subpart P**, the ~~particulate matter PM~~ as overspray from coating booths SB-1, SB-2 and SB-3 each shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

2. An additional compliance determination condition is being added to section D.1 as it has been determined that the each spray booth is equipped with dry filters for PM control. The revised rule requires particulate from the (surface coating, reinforced plastics composites fabricating manufacturing processes, or graphic arts manufacturing processes) to be controlled by a (dry particulate filter, waterwash, or an equivalent control device), and operated in accordance with manufacturer's specifications, therefore, the following condition has been added:

### D.1.5 Particulate **[326 IAC 6-3-2(d)]**

Pursuant to **[326 IAC 6-3-2(d)]** and in order to comply with D.1.3, the dry filters for particulate control shall be in operation in accordance with manufacturer's specifications and control emissions from the coating booths (SB-1, SB-2 and SB-3) at all times when the booths are in operation.

Condition D.1.7 (now renumbered D.1.8) has also been modified to include the monitoring for the dry filters.

**D.1.78 Monitoring**

---

- (a) **Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters,** ~~To demonstrate compliance with condition D.1.3,~~ weekly observations shall be made of the overspray from the surface coating booth SB-1, SB-2 and SB-3 stacks while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

Condition D.1.9 has been updated to correct the referenced condition.

**D.1.89 Record Keeping Requirements**

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.....

- (b) To document compliance with Condition D.1.89, the Permittee shall maintain a log of weekly overspray observations, monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

All remaining D.1 conditions have been re-numbered accordingly.

3. Previously, the terms "particulate" and "particulate matter" were both used in 326 IAC 6-3, but revisions were made to the rule which became effective on June 12, 2002 that included using the term "particulate" is used consistently in 326 IAC 6-3.

**D.2.1 Particulate Matter (PM) [326 IAC 6-3-2]**

---

Pursuant to 326 IAC 6-3-2 (~~Process Operations~~ **Particulate Emission Limitations for Manufacturing Processes**), the allowable ~~PM~~ **particulate** emission rate from the woodworking operation shall not exceed 3.90 pounds per hour when operating at a process weight rate of 1,860 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour.

## **Indiana Department of Environmental Management Office of Air Quality**

### **Technical Support Document (TSD) for a Federally Enforceable State Operating Permit (FESOP) Renewal**

#### **Source Background and Description**

**Source Name:** Merrill Manufacturing, Inc.  
**Source Location:** 1052 South Bond Street, Scottsburg, Indiana 47170  
**County:** Scott  
**SIC Code:** 2511  
**Operation Permit No.:** F143-14946-00015  
**Permit Reviewer:** Adeel Yousuf / EVP

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from Merrill Manufacturing, Inc. relating to the production of wood waterbed frames. Merrill Manufacturing, Inc. was issued FESOP F143-7383-00015 on March 21, 1997.

#### **Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) Three (3) spray paint booths identified as SB-1, SB-2, and SB-3 (each constructed in 1985), each using air atomization spray gun with a maximum capacity of 30 units per hour and exhausting through stacks SB-1-S, SB-2-S, and SB-3-S, respectively.
- (b) One (1) woodworking operation identified as WW-1, with a maximum throughput of 1860 pounds per hour, equipped with one (1) cyclone dust collection system for particulate matter control and exhausting through stack DC-1.

#### **Insignificant Activities**

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.
- (b) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
- (c) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.
- (d) Cleaners and solvents which combined do not exceed 145 gallons per 12 months.

- (e) Infrared cure equipment.
- (f) Any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs.
- (g) Water based adhesives that are less than or equal to 5 percent by volume of VOCs excluding HAPs.
- (h) Paved and unpaved roads and parking lots with public areas.
- (i) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks and fluid handling equipment.
- (j) Silk screening booth with potential VOC emissions less than 0.5 tons per year.
- (k) One (1) 1,200 gallon lacquer above ground storage tank.
- (l) One (1) 1,200 gallon sealer above ground storage tank.
- (m) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute.

### **Existing Approvals**

- (a) FESOP 143-7383-00015, issued on March 21, 1997; and expired on March 21, 2002.

All conditions from previous approvals were incorporated into this FESOP.

### **Enforcement Issue**

There are no enforcement actions pending.

### **Recommendation**

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP Renewal application for the purposes of this review was received on September 17, 2001.

There was no notice of completeness letter mailed to the source.

### **Emission Calculations**

See Appendix A of this document for detailed emissions calculations (pages 1 through 8).

### Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	Unrestricted Potential Emissions (tons/yr)
PM	48.47
PM-10	48.47
SO <sub>2</sub>	0.00
VOC	195.63
CO	0.10
NO <sub>x</sub>	0.10

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Unrestricted Potential Emissions (tons/yr)
Toluene	57.67
Glycol Ether	10.06
Diethyl Phthalate	9.94
2-Butanone	11.28
Hexane	7.39
Xylene	16.75
TOTAL	113.09

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of VOC is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) Fugitive Emissions  
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.



### Potential to Emit After Issuance

The source, issued a FESOP on March 21, 1997, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of this Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the source has not constructed any new emission units, the source's potential to emit is based on the emission units included in the original FESOP. (F143-7383-00015; issued on March 21, 1997).

Process/emission unit	Potential to Emit After Issuance (tons/year)						
	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Spray paint booth (SB-1)	0.30	0.30	-	18.53 <sup>(1)</sup>	-	-	(3)
Spray paint booth (SB-2)	1.32	1.32	-	< 25 <sup>(2)</sup>	-	-	(3)
Spray paint booth (SB-3)	2.63	2.63	-	< 25 <sup>(2)</sup>	-	-	(3)
Woodworking Operation	6.76	6.76	-	-	-	-	-
Insignificant Activities	0.20	0.20	0.02	0.70	2.80	3.30	negl.
Total PTE After Issuance	11.21	11.21	0.02	69.23	2.80	3.30	< 10 (single) < 25 (total)

Notes:

- 1) Reflects maximum uncontrolled VOC potential emissions from SB-1
- 2) Reflects limited potential emissions from SB-2 and SB-3 to avoid the requirements of 326 IAC 8-1-6 (BACT)
- 3) Single HAP and total HAPs emissions from the three (3) spray booths (SB-1, SB-2, and SB-3) combined are limited to less than 10 and 25 tons per year, respectively.

### County Attainment Status

The source is located in Scott County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment

Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Scott County has been designated as attainment or unclassifiable for ozone.

### Federal Rule Applicability

There are no new federal rules applicable to the source during this FESOP renewal review process. The applicability determination that follows is based on that conducted for the original FESOP F143-7383-00015, issued on March 21, 1997.

- (a) 40 CFR Part 60, Subparts K, Ka, and Kb (Standards of Performance for Petroleum Liquid Storage Vessels and Volatile Liquid Storage Vessels)

The storage tanks with capacity less than or equal to 1,000 gallons as an insignificant activity, is not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Parts 60.110; 110a - 115a; and 110b - 117b, as Subparts K, Ka, and Kb, respectively) since the tank storage capacity is below the minimum applicable threshold to the three rules (i.e., 40 cubic meters (10,568 gallons)).

There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this source.

- (b) The National Emission Standards for Wood Furniture Manufacturing Operations 40 CFR 63, Subpart JJ, does not apply to the three (3) spray paint booths (SB-1, SB-2, and SB-3), because this source has taken a limit to control single HAP and total HAPs emissions to less than 10 and 25 tons per year, respectively.

### State Rule Applicability - Entire Source

There are no new state rules applicable to the entire source during this FESOP renewal review process. The applicability determination that follows is based on that conducted for the original FESOP F071-6121-00024, issued on December 9, 1996.

#### 326 IAC 2-6 (Emission Reporting)

This source is located in Scott County which is not one of the specifically listed counties, nor does the source have the potential to emit CO, VOC, NO<sub>x</sub>, PM<sub>10</sub> (including fugitive emissions), or SO<sub>2</sub> in amounts at or exceeding 100 tons per year. The potential to emit of all other regulated pollutants is less than 100 tons per year. Therefore, 326 IAC 2-6 does not apply.

#### 326 IAC 2-2 and 40 CFR 52.21 (Prevention of Significant Deterioration, PSD)

Pursuant to 326 IAC 2-2 and 40 CFR 52.21 (PSD), this source, constructed in 1985 is still not considered a major source because it has the potential to emit less than 250 tons per year of any criteria pollutant and it is not one of the 28 listed source categories. Therefore, the Prevention of Significant Deterioration (PSD) rules, 326 IAC 2-2 and 40 CFR 52.21, do not apply.

326 IAC 5-1 (Visible Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 2-8-4 (FESOP)

This source is subject to 326 IAC 2-8-4 (FESOP). Pursuant to this rule, the following conditions shall apply:

- (a) The total input usage of any single HAP, and total HAPs delivered to the applicators in the three (3) spray paint booths (identified as SB-1, SB-2 and SB-3) and during clean-up shall be limited to less than 10 and 25 tons per twelve (12) consecutive month period, respectively.
- (b) The total input usage of VOC delivered to the applicators in the three (3) spray paint booths (identified as SB-1, SB-2, and SB-3) and during clean-up shall be limited to less than 100 tons per twelve (12) consecutive month period.

Compliance with above conditions will limit the source-wide VOC, single HAP, and total HAPs emissions to less than 100, 10 and 25 tons per twelve (12) consecutive month period, respectively. Therefore, the requirements of 326 IAC 2-7 (Part 70) do not apply.

**State Rule Applicability - Individual Facilities**

326 IAC 2-4.1-1 (Major Sources of Hazardous Air Pollutants (HAP))

The three (3) spray paint booths (SB-1, SB-2, and SB-3) will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1-1 does not apply.

326 IAC 6-3-2 (Process Operations)

- (a) The particulate matter (PM) from the woodworking operation shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and  
P = process weight rate in tons per hour

$$E = 4.10 * (0.93)^{0.67} = 3.90 \text{ lbs PM/hour}$$

Based on the above equation, particulate matter emissions from the woodworking operation shall be limited to 3.90 pounds per hour.

Compliance calculation:

$$(6.76 \text{ tons PM/yr}) * (\text{yr}/8,760 \text{ hrs}) * (2,000 \text{ lbs/ton}) = 1.54 \text{ lbs PM/hr}$$

Actual lbs PM/hr (1.54) is less than the allowable lbs PM/hr (3.90), therefore the woodworking operation will comply with the requirements of 326 IAC 6-3-2.

The cyclone dust collection system shall be in operation at all times the wood working operation is in operation, in order to comply with this limit.

- (b) The particulate matter (PM) from the three (3) spray paint booths (SB-1, SB-2 and SB-3) shall be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)

The spray paint booths (SB-1, SB-2, and SB-3), are not subject to the provisions of 326 IAC 8-2-12. This rule applies to facilities, existing as of July 1, 1990, with potential emissions of greater than 15 pounds per day of VOC located in Clark, Floyd, St. Joseph, Elkhart, Lake, Porter, or Marion counties. This source is not located in any of the aforementioned counties, therefore, the requirements of 326 IAC 8-2-12 do not apply.

326 IAC 8-1-6 (General Volatile Organic Compound Reduction Requirements)

This rule applies to facilities located anywhere in the state that were constructed on or after January 1, 1980, which have potential volatile organic compound (VOC) emissions of 25 tons per year or more, and which are not otherwise regulated by another provision of Article 8. Spray paint booth SB-1 has a maximum uncontrolled VOC potential emission of 18.53 tons per year. Therefore, this rule does not apply.

Spray paint booths (SB-2 and SB-3) were constructed in 1985 and each has potential VOC emissions above 25 tons per year. The VOC emissions from the spray booths SB-2 and SB-3 shall be limited to less than 25 tons per twelve (12) consecutive month period. Therefore the Best Available Control Technology (BACT) requirements under 326 IAC 8-1-6 (General Reduction Requirements) are not applicable to the spray paint booths SB-2 and SB-3.

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark and Floyd Counties)

The requirements of this rule apply to stationary sources located in Lake, Porter, Clark and Floyd Counties that emit or have the potential to emit VOCs at levels equal to or greater than 25 tons per year in Lake and Porter Counties; 100 tons per year in Clark and Floyd Counties; and to any coating facility that emits or has the potential to emit 10 tons per year or greater in Lake, Porter, Clark or Floyd County. This source is located in Scott County. Therefore, this rule is not

applicable to this source.

### Testing Requirements

Compliance testing is not required of this source since the coating material usage and related VOC and volatile organic HAP emissions assume an emission factor of 2,000 pounds of pollutant emitted per ton of pollutant input to the coating operation, and the woodworking operations are controlled by cyclone with emissions after control well below the allowable particulate matter emission rate.

### Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

1. The three (3) paint booths (SB-1, SB-2 and SB-3) have applicable compliance monitoring conditions as specified below:
  - (a) To demonstrate compliance with 326 IAC 6-3, weekly observations shall be made of the overspray from the surface coating booth SB-1, SB-2 and SB-3 stacks while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

These monitoring conditions are necessary because the spray paint booths must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-8 (FESOP).

- 2. The woodworking operation has applicable compliance monitoring conditions as specified below:
  - (a) Daily visible emissions notations of the woodworking operation stack exhaust shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
  - (b) An inspection shall be performed each calendar quarter of the cyclone controlling the woodworking operation when venting to the atmosphere. A cyclone inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.
  - (c) Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Compliance

Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

These monitoring conditions are necessary because the cyclone for the woodworking operation must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-8 (FESOP).

## **Conclusion**

The renewed operation of this waterbed frame manufacturing plant shall be subject to the conditions of the attached proposed FESOP No.: F143-14946-00015.

## Appendix A: Emission Calculations

**Company Name:** Merrill Manufacturing, Inc.  
**Address City IN Zip:** 1052 South Bond Street, Scottsburg, Indiana 47170  
**CP#:** 143-14946  
**Pit ID:** 143-00015  
**Permit Reviewer:** Adeel Yousuf / EVP

Uncontrolled Potential Emissions (tons/year)				
Emissions Generating Activity				
Pollutant	Surface Coating	Woodworking Operation	Insignificant Activities	TOTAL
PM	14.68	33.79	0.20	48.67
PM10	14.68	33.79	0.20	48.67
SO2	0.00	0.00	0.02	0.02
NOx	0.00	0.00	3.30	3.30
VOC	195.63	0.00	0.20	195.83
CO	0.00	0.00	2.80	2.80
total HAPs	113.09	0.00	negl.	113.09
worst case single HAP	(Toluene) 57.67	0.00	negl.	(Toluene) 57.67
Total emissions based on rated capacity at 8,760 hours/year.				
Controlled Potential Emissions (tons/year)				
Emissions Generating Activity				
Pollutant	Surface Coating	LPG-Propane Industrial Boilers (Combustion)	Insignificant Activities	TOTAL
PM	4.25	6.76	0.20	11.21
PM10	4.25	6.76	0.20	11.21
SO2	0.00	0.00	0.02	0.02
NOx	0.00	0.00	3.30	3.30
VOC	< 68.5	0.00	0.70	< 69.2
CO	0.00	0.00	2.80	2.80
total HAPs	< 25	0.00	negl.	< 25
worst case single HAP	(Toluene) < 10	0.00	negl.	(Toluene) < 10

Total emissions based on rated capacity at 8,760 hours/year, after control.

Note: VOC emission of 0.7 tpy from Insignificant Activities are taken from the original FESOP 143-7383-00015.



**Appendix A: Emissions Calculations  
VOC and Particulate  
From Surface Coating Operations**

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**Company Name:** Merrill Manufacturing, Inc.  
**Address City IN Zip:** 1052 South Bond Street, Scottsburg, Indiana 47170  
**CP:** 143-14946  
**Plt ID:** 143-00015  
**Reviewer:** Adeel Yousuf / EVP

**Spray Booth # 1 (SB-1)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Light Stain	7.5	94.00%	0.0%	94.0%	0.0%	8.00%	0.02000	30.000	7.05	7.05	4.23	101.52	18.53	0.30	88.13	75%

**State Potential Emissions**

**Add worst case coating to all solvents**

**4.23**

**101.52**

**18.53**

**0.30**

Controlled Potential Emissions																
								Material Usage Limitation	Control Efficiency:		Controlled VOC lbs per Hour	Controlled VOC lbs per Day	Controlled VOC tons per Year	Controlled PM tons/yr		
									VOC	PM						
								100.00%	0.00%	0.00%	4.23	101.52	18.53	0.30		
<b>Total Controlled Potential Emissions:</b>																

**METHODOLOGY**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)  
Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)  
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)  
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)  
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)  
Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)  
Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)  
Total = Sum of worst case coatings in each booth

**Appendix A: Emissions Calculations  
VOC and Particulate  
From Surface Coating Operations**

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**Company Name:** Merrill Manufacturing, Inc.  
**Address City IN Zip:** 1052 South Bond Street, Scottsburg, Indiana 47170  
**CP:** 143-14946  
**Pit ID:** 143-00015  
**Reviewer:** Adeel Yousuf / EVP

**Spray Booth # 2 (SB-2)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Lacquer Sealer	7.4	82.60%	0.0%	82.6%	0.0%	12.50%	0.10000	30.000	6.15	6.15	18.44	442.47	80.75	4.25	49.16	75%

**State Potential Emissions**

**Add worst case coating to all solvents**

**18.44**

**442.47**

**80.75**

**4.25**

Controlled Potential Emissions							
Total Controlled Potential Emissions:	Material Usage Limitation	Control Efficiency:		Controlled VOC lbs per Hour	Controlled VOC lbs per Day	Controlled VOC tons per Year	Controlled PM tons/yr
		VOC	PM				
		30.96%	0.00%	5.71	136.99	25.00	1.32

Note: At a 29.72% annual material usage limitation, VOC emissions are limited to 124 tons per year from SB-2, therefore, 326 IAC 8-1-6 does not apply.

**METHODOLOGY**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

Total = Sum of worst case coatings in each booth

**Appendix A: Emissions Calculations  
VOC and Particulate  
From Surface Coating Operations**

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**Company Name:** Merrill Manufacturing, Inc.  
**Address City IN Zip:** 1052 South Bond Street, Scottsburg, Indiana 47170  
**CP:** 143-14946  
**Pit ID:** 143-00015  
**Reviewer:** Adeel Yousuf / EVP

**Spray Booth # 3 (SB-3)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Gloss Lacquer	7.4	70.40%	0.0%	70.4%	0.0%	21.60%	0.14000	30.000	5.24	5.24	22.00	527.97	96.35	10.13	24.25	75%

**State Potential Emissions**

**Add worst case coating to all solvents**

**22.00**

**527.97**

**96.35**

**10.13**

Controlled Potential Emissions							
Total Controlled Potential Emissions:	Material Usage Limitation	Control Efficiency:		Controlled VOC lbs per Hour	Controlled VOC lbs per Day	Controlled VOC tons per Year	Controlled PM tons/yr
		VOC	PM				
		25.95%	0.00%	0.00%	5.71	137.01	25.00

Note: At a 24.91% annual material usage limitation, VOC emissions are limited to 24 tons per year, therefore, 326 IAC 8-1-6 does not apply.

**METHODOLOGY**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

Total = Sum of worst case coatings in each booth

**Appendix A: Emission Calculations**  
**HAP Emission Calculations**

**Company Name:** Merrill Manufacturing, Inc.  
**Address City IN Zip:** 1052 South Bond Street, Scottsburg, Indiana 47170  
**CP#:** 143-14946  
**Plt ID:** 143-00015  
**Permit Reviewer:** Adeel Yousuf / EVP

**Uncontrolled HAP emissions**

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % Glycol Ether	Weight % Diethyl Phthalate	Weight % 2-Butanon	Weight % Hexone	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Glycol Ether Emissions (ton/yr)	Diethyl Phthalate Emissions (ton/yr)	2-Butanon Emissions (ton/yr)	Hexone Emissions (ton/yr)
Light Stain (SB-1)	7.50	0.020000	30.00	85.00%	3.00%	2.00%	0.00%	0.00%	0.00%	16.75	0.59	0.39	0.00	0.00	0.00
Gloss Lacquer (SB-3)	7.40	0.140000	30.00	0.00%	8.00%	7.10%	7.30%	0.00%	0.00%	0.00	10.89	9.67	9.94	0.00	0.00
Lacquer Sealer (SB-2)	7.40	0.100000	30.00	0.00%	47.50%	0.00%	0.00%	11.60%	7.60%	0.00	46.19	0.00	0.00	11.28	7.39
Total State Potential Emissions										<b>16.75</b>	<b>57.67</b>	<b>10.06</b>	<b>9.94</b>	<b>11.28</b>	<b>7.39</b>
															<b>113.09</b>

**Total HAP emissions for the source are limited to 24.0 tons/year and single HAP emissions are limited to 9.0 tons/year. Therefore, the requirements of 326 IAC 2-7 do not apply.**

**METHODOLOGY**

HAPS emission rate (tons/yr) = Density (lb/gal) \* Gal of Material (gal/unit) \* Maximum (unit/hr) \* Weight % HAP \* 8760 hrs/yr \* 1 ton/2000 lbs

**Appendix A: Emissions Calculations**  
**Particulate Matter (PM) Emissions**  
**Wood Working Operations**

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**Company Name:** Merrill Manufacturing, Inc.  
**Address City IN Zip:** 1052 South Bond Street, Scottsburg, Indiana 47170  
**CP#:** 143-14946  
**Plt ID:** 143-00015  
**Permit Reviewer:** Adeel Yousuf / EVP

PM/PM10:	0.03 gr/acf outlet x	6000 acf/min x	60 min/hr /	7000 gr/lb x	4.38 ton/yr / lb/hr	0.2 (1- control efficiency) =	<b>33.79 tons/yr (uncontrolled)</b>
	where the baghouse control efficiency is listed at		80.00%				<b>6.76 tons/yr (controlled)</b>

**Methodology**

Uncontrolled PM/PM10 = grain loading (gr/acf outlet) \* Flow rate (acfm) \* (60 min/hr) \* (1 lb/7000 gr) \* 4.38 (tons/yr / lb/hr) / (1- control efficiency %)

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM Btu/hr 0.3 - < 100**

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**Company Name:** Merrill Manufacturing, Inc.  
**Address City IN Zip:** 1052 South Bond Street, Scottsburg, Indiana 47170  
**CP#:** 143-14946  
**Plt ID:** 143-00015  
**Permit Reviewer:** Adeel Yousuf / EVP

Heat Input Capacity

MMBtu/hr

7.5

Potential Throughput

MMCF/yr

65.7

Heat Input Capacity includes:

One (1) 12.2 MMBtu/hr press dryer system (ID No. 01); one (1) 9.0 MMBtu/hr supplementary natural gas fired oxidizer;  
 Seven (7) natural gas fired space heaters with combined heat input of 1.24 MMBtu/hr.

Pollutant						
Emission Factor in lb/MMCF	PM*	PM10*	SO2	NOx	VOC	CO
	7.6	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.2	0.2	0.02	3.3	0.2	2.8

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03  
 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

## TSD Addendum, Appendix A: Emission Calculations

**Company Name:** Merrill Manufacturing, Inc.  
**Address City IN Zip:** 1052 South Bond Street, Scottsburg, Indiana 47170  
**CP#:** 143-14946  
**Pit ID:** 143-00015  
**Permit Reviewer:** Adeel Yousuf / EVP

Uncontrolled Potential Emissions (tons/year)				
Emissions Generating Activity				
Pollutant	Surface Coating	Woodworking Operation	Insignificant Activities	TOTAL
PM	14.68	33.79	0.20	48.67
PM10	14.68	33.79	0.20	48.67
SO2	0.00	0.00	0.02	0.02
NOx	0.00	0.00	3.30	3.30
VOC	195.63	0.00	0.20	195.83
CO	0.00	0.00	2.80	2.80
total HAPs	113.09	0.00	negl.	113.09
worst case single HAP	(Toluene) 57.67	0.00	negl.	(Toluene) 57.67
Total emissions based on rated capacity at 8,760 hours/year.				
Controlled Potential Emissions (tons/year)				
Emissions Generating Activity				
Pollutant	Surface Coating	LPG-Propane Industrial Boilers (Combustion)	Insignificant Activities	TOTAL
PM	0.21	6.76	0.20	7.17
PM10	0.21	6.76	0.20	7.17
SO2	0.00	0.00	0.02	0.02
NOx	0.00	0.00	3.30	3.30
VOC	< 68.5	0.00	0.70	< 69.2
CO	0.00	0.00	2.80	2.80
total HAPs	< 25	0.00	negl.	< 25
worst case single HAP	(Toluene) < 10	0.00	negl.	(Toluene) < 10

Total emissions based on rated capacity at 8,760 hours/year, after control.

Note: VOC emission of 0.7 tpy from Insignificant Activities are taken from the original FESOP 143-7383-00015.

**TSD Addendum, Appendix A: Emissions Calculations  
VOC and Particulate  
From Surface Coating Operations**

Page 3 of 4 ATSD App A (revised)

**Company Name:** Merrill Manufacturing, Inc.  
**Address City IN Zip:** 1052 South Bond Street, Scottsburg, Indiana 47170  
**CP:** 143-14946  
**Pit ID:** 143-00015  
**Reviewer:** Adeel Yousuf / EVP

**Spray Booth # 2 (SB-2)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Lacquer Sealer	7.4	82.60%	0.0%	82.6%	0.0%	12.50%	0.10000	30.000	6.15	6.15	18.44	442.47	80.75	4.25	49.16	75%

**State Potential Emissions**

**Add worst case coating to all solvents**

**18.44                      442.47                      80.75                      4.25**

Controlled Potential Emissions							
Total Controlled Potential Emissions:	Material Usage Limitation	Control Efficiency:		Controlled VOC lbs per Hour	Controlled VOC lbs per Day	Controlled VOC tons per Year	Controlled PM tons/yr
		VOC	PM				
		30.96%	0.00%	95.00%	5.71	136.99	25.00
							0.07

Note: At a 29.72% annual material usage limitation, VOC emissions are limited to 124 tons per year from SB-2, therefore, 326 IAC 8-1-6 does not apply.

**METHODOLOGY**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)  
Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)  
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)  
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)  
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)  
Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)  
Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)  
Total = Sum of worst case coatings in each booth



**TSD Addendum, Appendix A: Emissions Calculations  
VOC and Particulate  
From Surface Coating Operations**

Page 3 of 4 ATSD App A (revised)

**Company Name:** Merrill Manufacturing, Inc.  
**Address City IN Zip:** 1052 South Bond Street, Scottsburg, Indiana 47170  
**CP:** 143-14946  
**Pit ID:** 143-00015  
**Reviewer:** Adeel Yousuf / EVP

**Spray Booth # 2 (SB-2)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Lacquer Sealer	7.4	82.60%	0.0%	82.6%	0.0%	12.50%	0.10000	30.000	6.15	6.15	18.44	442.47	80.75	4.25	49.16	75%

**State Potential Emissions**

**Add worst case coating to all solvents**

**18.44                      442.47                      80.75                      4.25**

Controlled Potential Emissions							
Total Controlled Potential Emissions:	Material Usage Limitation	Control Efficiency:		Controlled VOC lbs per Hour	Controlled VOC lbs per Day	Controlled VOC tons per Year	Controlled PM tons/yr
		VOC	PM				
		30.96%	0.00%	95.00%	5.71	136.99	25.00

Note: At a 29.72% annual material usage limitation, VOC emissions are limited to 124 tons per year from SB-2, therefore, 326 IAC 8-1-6 does not apply.

**METHODOLOGY**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)  
Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)  
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)  
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)  
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)  
Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)  
Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)  
Total = Sum of worst case coatings in each booth

**TSD Appendix, Appendix A: Emissions Calculations**  
**VOC and Particulate**  
**From Surface Coating Operations**

Page 4 of 4 ATSD App A (revised)

**Company Name:** Merrill Manufacturing, Inc.  
**Address City IN Zip:** 1052 South Bond Street, Scottsburg, Indiana 47170  
**CP:** 143-14946  
**Pit ID:** 143-00015  
**Reviewer:** Adeel Yousuf / EVP

**Spray Booth # 3 (SB-3)**

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Gloss Lacquer	7.4	70.40%	0.0%	70.4%	0.0%	21.60%	0.14000	30.000	5.24	5.24	22.00	527.97	96.35	10.13	24.25	75%

**State Potential Emissions**

**Add worst case coating to all solvents**

**22.00**

**527.97**

**96.35**

**10.13**

Controlled Potential Emissions							
Total Controlled Potential Emissions:	Material Usage Limitation	Control Efficiency:		Controlled VOC lbs per Hour	Controlled VOC lbs per Day	Controlled VOC tons per Year	Controlled PM tons/yr
		VOC	PM				
	25.95%	0.00%	95.00%	5.71	137.01	25.00	0.13

Note: At a 24.91% annual material usage limitation, VOC emissions are limited to 24 tons per year, therefore, 326 IAC 8-1-6 does not apply.

**METHODOLOGY**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

Total = Sum of worst case coatings in each booth